

CLAIMS

- 5 1. A process for the production of at least two-ply paper laminates,
2 characterized in that a water-soluble hotmelt adhesive is applied to a first
3 layer of paper and at least a second layer of paper is laminated onto the
4 adhesive side of the first layer, the solubility of the hotmelt adhesive in
5 water at 20°C being at least 3% by weight.
- 6 2. A process as claimed in claim 1, characterized in that a 0.3% by
7 weight solution of the hotmelt adhesive in water has an upper cloud point of
8 at least 60°C.
- 9 3. A process as claimed in claim 1 or 2, characterized in that the
10 hotmelt adhesive has a melt viscosity (Brookfield Thermocell, spindle 27) of
11 400 to 20,000 mPa.s at a temperature of 100 to 180°C.
- 12 4. A process as claimed in any of claims 1 to 3, characterized in that
13 the hotmelt adhesive has an open time of at least 0.2 second.
- 14 5. A process as claimed in any of claims 1 to 4, characterized in that
15 the hotmelt adhesive has a crystallinity (as measured by DSC) of at least
16 about 20% of the value measured for polyethylene glycol with a molecular
17 weight (M_n) of 6,000.
- 18 6. A process as claimed in any of claims 1 to 5, characterized in that a
19 polyalkylene glycol with a molecular weight (M_n) of 1,000 to 100,000 is
20 used as the hotmelt adhesive.
- 21 7. A process as claimed in any of claims 1 to 6, characterized in that at
22 least one nonionic polyurethane with a molecular weight (M_n) of at least
23 2,000 or a polyester with a molecular weight of at least about 3,000 is used
24 as the hotmelt adhesive.
- 25 8. A process as claimed in claim 7, characterized in that the nonionic

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1 polyurethane is obtainable by reacting at least one polyisocyanate with at
2 least one polyalkylene glycol with a molecular weight of at least 1,550.

3 9. The use of polyalkylene glycol with a molecular weight at least 1,000
4 and a solubility in water at 20°C of at least 3% by weight as a hotmelt
5 adhesive.

6 10. The use of a nonionic polyurethane with a molecular weight (M_n) of
7 at least 2,000 as a hotmelt adhesive.

8 11. The use claimed in claim 9 or 10, characterized in that the hotmelt
9 adhesive is used in the production of at least two-ply hygiene papers or in
10 the production of moisture-tackifiable materials.

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